August 2018 - Mid-Month Bonus

Thank you for subscribing to Dr. Jeffrey Bland's newsletter. Enjoy and share this information, which is for educational purposes only. Always consult with a qualified healthcare professional when you are in need of medical advice, diagnosis, or treatment.

In this issue: The Vantage Point, New Video: A 7-Minute Webinar, Classic FMU

The Vantage Point: What's Been Happening in Dr. Bland's World?

It's been a busy summer for Dr. Jeff Bland and it's not over yet! To track his activities in real time and see all the photos from his travels, consider following his Instagram page.

Once again Dr. Jeff Bland is stepping into the role of global ambassador for personalized lifestyle medicine and functional medicine. In August he traveled to China--first to Beijing and then on to Harbin--where he met with business leaders and clinicians, visited medical clinics and organizations, and spoke in front of an audience of more than 1000 healthcare professionals.

Dr. Bland received a warm welcome in China and sends his thanks and gratitude to his hosts and supporters. The trip was successful by every measure and was the first of two visits Dr. Bland will be making to that region of the world this year.

New Video: A 7-Minute Mini Webinar!

Video is one of Dr. Bland's favorite communication tools. Be sure to subscribe to Dr. Bland's YouTube channel to never miss an update, and you will also find additional videos on the Personalized Lifestyle Medicine Institute's Vimeo page.

Video Link:
https://vimeo.com/283080559

View Slides:
https://bit.ly/2Mnq3Bn

More Reading:
https://bit.ly/2w6rrOI

More Information about the Sixth Annual Thought Leaders Consortium:
http://plminstitute.org/

What is the Difference Between Chronological Age (Birthdays) and Biological Age (Function)?

Do you have 7 minutes to spend exploring that concept with Dr. Jeff Bland? Start by thinking about an even more profound question: Why is age the most significant risk factor for all chronic diseases and can we modify this risk through the application of personalized precision health care?

This is a topic that Dr. Bland has been diving deep into over the past year. The science is fascinating, and there are myriad ways that key discoveries may affect the practitioner-patient therapeutic relationship.

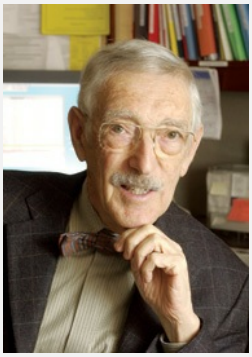
This fall, Dr. Bland will host the Sixth Annual Thought Leaders Consortium in his role as President of the Personalized Lifestyle Medicine Institute. He has invited top researchers and clinicians from around the world to speak about leading-edge science initiatives and important clinical activities that are underway. Attendees from 13 countries have already registered. Act soon if you would like to join this group of highly respected innovators in Tucson, Arizona October 12 and 13, 2018.

From the Functional Medicine Update Audio Archive

The Kind of Scientist Many Aspire to Be

An interview with:
Bruce Ames, PhD

April 2010



He is an internationally respected scientist whose distinguished research career has spanned more decades, disciplines, and publications than most—fruit of an open and engaging mind. He has received many prestigious awards, including the US National Medal of Science, The Linus Pauling Institute Prize for Health Research, and the American Society for Microbiology Lifetime Achievement Award. His Ames test is a trusted standard in evaluating substances' mutagenic and carcinogenic potential, and his work inspired the creation of a metabolically optimized mouse that lives at least 50 percent longer than usual. He knows precisely how EARs relate to AIs (measures of nutritional sufficiency), yet realizes that biochemical individuality is where the human story truly begins. His fascination with how certain food components are necessary for life led

Bruce Ames, PhD to formulate the "triage theory" that many essential (and inexpensive) nutrients additionally serve long-term functions critical to successful aging—but can only do so when dietary intakes are sufficient yet not excessive, a condition rarer than it could be in a wealthy nation like the US. In partial answer to this need for a "metabolic tune-up" at the population level, his Nutrition and Metabolism group at the Children's Hospital of Oakland Research Institute (CHORI) developed the nutrient-dense CHORI bar for an increasingly obese public. All this, and Dr. Ames, long-time member of the National Academy of Science, still appreciates the value of a nice leafy green salad.

Classic FMU Top Ten Clinical Pearls
Bruce Ames, PhD, Children's Hospital of Oakland Research Institute (CHORI)

1. Many Americans are not getting enough magnesium, omega-3 fats, potassium, calcium, folate, iron, and/or vitamins D and K to support long-term health and slow metabolic aging.
2. Dr. Ames' nutrient triage theory states that, in insufficiency, the body prioritizes immediate survival over future health; e.g., in low vitamin K intake, long-term blood flow is sacrificed for short-term coagulation.
3. Roger Williams and Linus Pauling introduced seminal concepts of biochemical individuality, optimal nutrition, conditionally-essential nutrients, and genetic influences on one's unique metabolic needs.
4. Nutrient sufficiency, non-excess, and balance are central to metabolic efficiency, genomic stability, gut integrity, proper appetite, mitochondrial function, and healthy aging.
5. In sufficiency, essential nutrients play biochemical roles beyond preventing deficiency diseases; for example, vitamin D influences vascular, insulin, and immune functions in addition to remedying rickets.
6. Dr. Bruce Ames sees many common conditions (such as cancer and cardiovascular disease) as latent diseases of aging related to alterations in metabolism caused by suboptimal nutrition.
7. In contrast to the myth that nutrient-related enzymes are 'saturated' at average intakes, optimal nutrition triggers production of factors that improve function and ease general symptoms like fatigue and pain.
8. Mitochondrial aging is accompanied by increased formation of pro-oxidants per unit of energy production, but lipoic acid and N-acetylcarnitine can help counter this metabolic trend.
9. Improving nutrient intakes via supplements is an inexpensive way to reduce the burden and costs of chronic disease (especially obesity), though nutrient-dense foods like leafy greens are crucial.
10. Some drugs interfere with nutrient metabolism, aggravate insufficiencies, and abet long-latency conditions like osteoporosis and cardiometabolic disease. Women with low vitamin D levels and joint pain due to aromatase inhibitors given therapeutic dosages may experience significant relief.

Interview Link:
http://jeffreybland.com/knowledgebase/april-2010-issue-bruce-ames-phd-childrens-hospital-oakland-research-institute-chori/

Did you know a unique variety of mouse was named in honor of Dr. Bruce Ames? It's true! The Ames dwarf mouse was specially developed for genomic/metabolic aging research and these mice are used by many scientists in their work.

Ten Metabolic Characteristics of Ames Dwarf Mice:

- Longer lifespan and healthspan; live ~50-68% longer than usual
- Altered pituitary function and lower body temperature
- Altered immune stem cell development favors anti-inflammatory expression
- Smaller and lighter, with functionally enhanced brown adipose tissue
- Super-efficient mitochondrial energy production
- Extraordinary insulin sensitivity and low insulin-like growth factor levels
- Elevated anti-inflammatory, antioxidant, and detoxification enzyme activity

- Low levels of prolactin and thyroid-stimulating and growth hormone levels
- Reduced sexual dimorphism between genders
- Live even longer and healthier eating soy and soy protein

Masternak MM, et al. Dwarf mice and aging. Prog Mol Biol Transl Sci 2018;155:69-83.

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